NHDOT SPR2 PROGRAM

RESEARCH PROGRESS REPORT

Project # *26962S*		**Report Period** Year *2017* ☐Q1 (Jan-Mar) ☐Q2 (Apr-Jun) ☐Q3 (Jul-Sep) ☒Q4 (Oct-Dec)
Project Title: *Assessing lower impulse load levels on reinforced asphalt pavement*		
Project Investigator: **Phone:** 603-646-4503		**E-mail:** Lynette.A.Barna@usace.army.mil
Project Start Date: *03 January 2017*[a] *30 November 2016*	**Project End Date:** *03 January 2018*	**Project schedule status:** ☐On schedule ☐ Ahead of schedule ☒ Behind schedule *Check appropriate box*

[a] **Project start date per Cooperative Research and Development Agreement (CRADA)**

Brief Project Description:

NHDOT installed fiberglass grid reinforcement in several flexible roadways throughout the state in an effort to address fatigue cracking and extend the service life. Coefficient values for fiberglass reinforced asphalt pavement are needed for design. Data collected during the fall of 2014 from impulse load testing at three test sections representing the thin asphalt layer will be analyzed to determine coefficient values for design. The field data was collected on NH Route 101 using Falling Weight Deflectometer [FWD] and Lightweight Deflectometer [LWD] pavement testing equipment. The data analysis will evaluate the FWD deflection measurements at the lower load levels and the LWD data to determine the possible benefit of reinforcing grid in the asphalt layer.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

- A review of the back-calculation results and initial preparation of the summary document.

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc…):

NTR

Anticipated research next three (3) months:

Task 2 (continued). Final delivery of summary document at conclusion of 1st quarter.

Circumstances affecting project:

Completion of final deliverable delayed with expected completion by the conclusion of 1st quarter.

Tasks (from Work Plan) *add lines to table as needed*	**Planned % Complete**	**Actual % Complete**
4th Quarter (Oct-Dec 2016) *No tasking*	--------	--------
Project Requirements 1st Quarter (Jan-Mar) *Project work acceptance documents and project setup*	*100*	*100*
Task 1a 1st Quarter (Jan-Mar) *Prepare the FWD data at 6, 9, and 12 kip load levels, for back-calculation.*	*100*	*100%*
Task 1b 2nd Quarter (Apr-Jun) *Prepare the LWD data at 6, 8, 9, and 12 kip load levels, for back-calculation*	*100*	*100*
Task 2 3rd Quarter (Jul-Sep) *Conduct backcalculation on FWD and LWD data*	*100*	*100*
Task 2 4th Quarter (Oct-Dec) *Determine asphalt layer stresses and strains* *Prepare technical summary*	*100*	*25*